

Vision Therapy for Binocular Vision Anomalies

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Patients with having Visual Acuity (VA) or Best Corrected Visual Acuity (BCVA) of 6/6 often come with the complain of headache, eye ache/pain, blurred vision and other asthenopia related symptoms. These patients are often wrongly diagnosed and their binocular vision parameters remain unchecked. Binocular vision anomalies like convergence insufficiency/excess, accommodation insufficiency/excess, fusional vergence dysfunction and ocular motility related problems are the underlying causes for the symptoms related to asthenopia. Previously, orthoptic exercises like pen/pencil push-up exercises were the most common method to treat convergence insufficiency. But now with the home therapy remaining non-compliant to some patients and even failure of pen exercises, are well and successfully treated by vision therapy. After doing some Vision Therapy (VT) exercises (office and home) a patient can get relief from his/her asthenopia related problems and improved depth perception (stereopsis).

For strabismic cases, sometimes intermittent squint with good control or tropia with small amount of deviation are well managed by VT sessions. Even for post-operative cases, residual or consecutive deviations can be treated with the sessions of vision therapy without going for the second surgery. Post-operative diplopia is the most common scenario after squint surgeries and vision therapy can be a blessing for these patients.

Dichoptic training for amblyopia therapy is the updated management modality in Vision Therapy for amblyopia. With

this method patients are more compliant and the improvement rate is the highest in case of asthenopia as well as binocular vision anomalies, whereas our conventional method often requires a long time, and sometimes there is mild or no improvement at all. Recurrence and reverse amblyopia sometimes we find in our conventional method (patching). But these are not seen in this updated management, and improvement will be faster with achievement of good stereopsis by this dichoptic therapy.

Refraction (retinoscopy) is done more technically in such cases, as "Plus (+) Spherical" can be increased (over correction) to make relaxation of accommodation and make eyes to diverge. And "Minus (-) Spherical" can be increased (over correction) to stimulate accommodation and make eyes to converge more. Over correction or under correction can be given depending upon phoria, accommodation and other parameters as well.